

CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

REPORT

COUNTRY USSR
SUBJECT Surveying

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THIS IS UNEVALUATED INFORMATION

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1. [redacted] the Technical Institute of Kowel. The surveying course was of three year's duration and included algebra, trigonometry, differential calculus, integral calculus, plane, solid and analytic geometry, language (German), land surveying, road and canal surveying, irrigation surveying, plans and graphs, map signs and symbols, and laying of foundations. There were surveying schools in Kharkov and Dnepropetrovsk

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2. [redacted] a 30 second theodolite [redacted] was manufactured in Leningrad. The name plate did not give the date of manufacture. This instrument was difficult to use as the magnifying lenses used to read the scales were of very poor quality. [redacted] used a 20 second theodolite of German manufacture (Otto feln). [redacted] used both Dumpy and Wye type levels. These had no markings to indicate place of manufacture. [redacted] some instruments of Polish origin. There were some 20" theodolites and one second theodolite at the rayon geodetic group headquarters [redacted]

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3. The surveying [redacted] was very simple because the oblast geodetic group gave the easiest and dirtiest jobs to the rayon. The rayon group consisted of about 20 administrative people and surveyors. [redacted] surveyed three kolkhozes: Andrievka, Pryslav and Vychyslavka, all near Berdyansk. [redacted] surveyed small plots of land near Kowel. Surveying for roads and buildings was done by the oblast geodetic group, and cartographic surveying by a higher agency.

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4. [redacted]

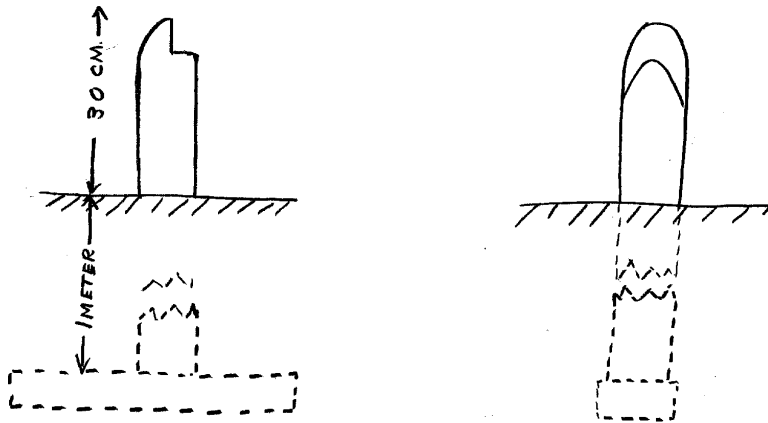
5. [redacted] the mean level of the Baltic Sea was the horizontal datum that was used. Bench marks in cities were

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located on the sides of certain buildings, usually a church or university. The bench mark was a metal ball imbedded in concrete. These points were located and numbered on the plans of the city which could be obtained from the burgermeister. If you wanted to use one of these bench marks, you had to go to NKVD headquarters and tell them the number of the bench mark in which you were interested. They would then investigate why you wanted to know and if you had the authority to have this information. If you passed the investigation they would tell you the latitude, longitude and elevation of the marks in question. In the country, the bench marks were square wooden posts, about 8" on a side, about one meter in the ground, and about 30 cm above the ground. There was a crosspiece on the bottom to make it more stable. Each bench mark had a number which had to be given to the NKVD to obtain the necessary data for its use.



FRONT VIEW

6.

The limits of error depended upon the class of terrain, of which there were five. Fifth class terrain was ideal; first class was very rugged. [] surveying was done in what was considered fourth class terrain. The allowable error was \pm one in 2,000. In fifth class terrain, the allowable error was \pm one in 15-20,000.

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7. The only maps [] were of villages or surrounding countryside. These were kept in the burgermeister's office. The maps of villages were generally 1:500 and of the countryside, 1:2,500. They did not contain elevations. There were no security regulations regarding these maps. Maps showing military installations, buildings and railroads could only be obtained from the NKVD. Ordinary road maps could be purchased anywhere.

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